

In The United States Patent and Trademark Office

In re U.S. Patent Application of:

Mark D. PENK et al.

Serial No. **09/975,895**

Filed: **October 12, 2001**

For: **Propagation of Dynamic Network
Information**

Examiner: **D. E. England**

Group Art Unit: **2143**

Attorney Docket No.: **A-7485
(2070.0046C)**

Confirmation No. **1171**

APPEAL BRIEF

Filed via EFS-Web

Mail Stop Appeal Brief - Patents
Commissioner for Patents
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Alexandria, VA 22313-1450

Sir:

Pursuant to the Notice of Appeal filed May 28, 2008, and in accordance with the provisions of 35 U.S.C. § 134 and C.F.R. § 41.31, Appellants submit this Appeal Brief to appeal the Examiner's rejections of claims 16-21, 25-26, 35-40, 42, 44, 46-56, 58, and 60-63, which were made final in the Final Office Action mailed February 7, 2008, and maintained in the Advisory Action mailed July 1, 2008.

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I. REAL PARTY IN INTEREST

The real party in interest is Scientific-Atlanta, Inc., the Assignee of the entire title and interest in the subject application, as evidenced by the Assignment recorded in the U.S. Patent and Trademark Office at Reel 012260, Frame 0356.

II. RELATED APPEALS AND INTERFERENCES

The Appellants, their legal representatives, and the Assignee are not aware of any other pending appeals, interferences or judicial proceedings which may be related to, will directly affect or be directly affected by, or have a bearing on the Board's decision in this appeal.

III. STATUS OF THE CLAIMS

Claims 1-15, 22-24, 41, 43, 45, 57, and 59 are canceled, and claims 16-21, 25-40, 42, 44, 46-56, 58, and 60-63 remain pending. Claims 27-34 are withdrawn. No claims are allowed. Claims 16-21, 25-26, 35-40, 42, 44, 46-56, 58, and 60-63 stand finally rejected under 35 U.S.C. §103(a). All of the rejections of claims 16-21, 25-26, 35-40, 42, 44, 46-56, 58, and 60-63 are being appealed.

IV. STATUS OF AMENDMENTS

Subsequent to the Final Office Action mailed February 7, 2008, an amendment and response was filed on May 28, 2008 amending claim 49. Such amendment, however, was not entered, as noted in the Advisory Action mailed July 1, 2008. The status of the claims in this application is as set forth above and in Appendix A.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claims 16, 35 and 49 are involved in this appeal, and recite apparatus and methods for transmitting and/or receiving a dynamic network information table in a digital network, such as a digital subscriber network or a digital broadband delivery system.

Independent claim 16 recites a method for enabling a receiver in a digital subscriber network (Figure 1, Digital Broadband Delivery System (DBDS) 100) to request services, the method comprising the steps of (a) receiving, at a receiver (Figure 1, Digital Home Communications Terminal (DHCT) 110), a dynamic network information table inserted within a transport stream (Figures 2, 4 and 8, transport streams 254(A)-254(L)) from a first device positioned in the digital subscriber network upstream with respect to the receiver (Figure 2 and 4, satellite signal receivers 214(A)-214(C), application servers 216(A)-216(B), encoder 218, Broadband Integrated Gateway (BIG) 224, Multi-Quadrature Amplitude Modulators (MQAM) 230(A)-230(C), or controllers 234 and 236), and (b) transmitting a request for a service, the requested service including at least a portion of the information included in the dynamic network information table. *See page 32 line 14 to page 34 line 21.*

The dynamic network information table (Figure 11, Dynamic Network Information Table (DNIT) 1100(A)) includes (1) a device-specific subtable (Figure 11, DNIT 1102(A)) including information associated with transmission characteristics (Figure 11, e.g., one or more of NETWORK_ID, TRANSPORT_ID, DATA_TYPE, BANDWIDTH_AVAILABLE, NST_INSERTION_RATE, UNIT_TYPE, CONTROLLER_ADDRESS, or NUM_OF_INPUTS) of the first device, and (2) an upstream subtable (Figure 11, DNIT 1102(B) or 1102(C)) including information associated with transmission characteristics (Figure 11, e.g., one or more of NETWORK_ID, TRANSPORT_ID, DATA_TYPE, BANDWIDTH_AVAILABLE, NST_INSERTION_RATE, UNIT_TYPE, CONTROLLER_ADDRESS, or NUM_OF_INPUTS) of one or more devices positioned in the digital subscriber network upstream with respect to the first device. *See page 27 line 23 to page 32 line 13.*

Independent claim 35 recites an apparatus (Figures 2, 4 and 8, MQAMs 230(A)-230(C)) in a digital network (Figure 1, DBDS 100) coupled to a first communication link and a second communication link (Figures 2 and 4, transport streams 250 (E), 250(F), 250(G), 250(H), 252,

254(A)-254(L); Figure 8, transport streams 250(D), 252, 254(A)-(D)), comprising (a) an input port (Figure 8, input port 806) adapted to receive a first transport stream (Figure 8, transport stream 252 or 250(D); Figure 3 (entire)) through a first communication link, the first transport stream including a first dynamic network information table (Figure 11, DNIT 1100(B) or 1100(C)); (b) a processor (Figure 8, CPU 802) in communication with the input port, the processor adapted to determine network information related to the received transport stream (Figure 11, e.g., link status information 1106(A) or 1106(B), or one or more of NETWORK_ID, TRANSPORT_ID, DATA_TYPE, BANDWIDTH_AVAILABLE, NST_INSERTION_RATE, UNIT_TYPE, NUM_OF_INPUTS, or CONTROLLER_ADDRESS; Figure 8, TSID “G” or TSID “D”), the processor further adapted to create a second dynamic network information table (Figure 10 (entire); Figure 11, DNIT 1100(A)); and (c) a transmitter (Figure 8, transmitter 808) in communication with the processor, the transmitter adapted to transmit the second dynamic network information table through the second communication link (Figure 8, transport stream 254(A), 254(B), 254(C) or 254(D)). *See page 25 line 25 to page 28 line 19.*

The first dynamic network information table (Figure 11, DNIT 1100(B) or 1100(C)) includes network information related to an identifier corresponding to an upstream device in communication with the first communication link (Figure 6, network message 600, device ID 602, output TSID 604, input TSID 606, network status 608; Figure 11, e.g., link status information 1106(A) or 1106(B), or one or more of NETWORK_ID, TRANSPORT_ID, DATA_TYPE, BANDWIDTH_AVAILABLE, NST_INSERTION_RATE, UNIT_TYPE, NUM_OF_INPUTS, or CONTROLLER_ADDRESS), and the second dynamic network information table (Figure 11, DNIT 1100(A)) includes (1) an identifier associated with said apparatus (Figure 10, identification field 1006, transport ID field 1008, device information field 1010 and network data field 1012; Figure 11, NETWORK_ID (e.g., “MOD_1.1_NETWORK_ID{”)) and (2) the network information included in the first dynamic network information table (Figure 11, DNIT 1100(B) or 1100(C)). *See page 16 line 22 to page 17 line 9; page 27 line 23 to page 32 line 13.*

Independent claim 49 recites a method for propagating network information in a digital broadband delivery system (Figure 1, DBDS 100), the method comprising (a) receiving in a first device (Figures 2, 4 and 8, MQAMs 230(A)-230(C)) a first transport stream (Figure 8, transport

stream 252 or 250(D); Figure 3 (entire)) from an upstream device (Figure 2 and 4, satellite signal receivers 214(A)-214(C), application servers 216(A)-216(B), encoder 218, BIG 224, or controllers 234 and 236), the first transport stream including a first dynamic network information table (Figure 11, DNIT 1102(B) or 1102(C)); (b) inserting the network information and information specific to the first device (Figure 11, DNIT 1102(A), e.g., one or more of NETWORK_ID, TRANSPORT_ID, DATA_TYPE, BANDWIDTH_AVAILABLE, NST_INSERTION_RATE, UNIT_TYPE, CONTROLLER_ADDRESS, or NUM_OF_INPUTS) in a packet of a second transport stream (Figure 11, transport stream 254(A)-254(D); Figure 3, e.g., Program Association Table (PAT) packet); and (c) transmitting the second transport stream to a downstream device (Figure 1, DHCT 110; Figure 9 “Transmit Table” 908). The first dynamic network information table includes network information related to at least one characteristic of one or more transport streams (Figure 10, transport ID field 1008 and network data field 1012; Figure 11, TRANSPORT_ID, DATA_TYPE, BANDWIDTH_AVAILABLE, NST_INSERTION_RATE) transmitted within the digital broadband delivery system. *See* page 25 line 25 to page 28 line 19; page 28 lines 21-27; page 32 line 14 to page 34 line 21.

Although the independent claims 35 and 49 have been summarized with respect to an MQAM as an exemplary device or apparatus, it should be understood that the above description is only exemplary, and that other devices within the described DBDS may serve as the claimed (first) device and/or apparatus. It should also be understood that when another device within the DBDS embodies the claimed device and/or apparatus, that the various upstream/downstream components will also differ, for example if the first device of claim 49 is BIG 224 (instead of the exemplified MQAM 230(A)), then BIG 224 cannot also be the upstream device (as it is not upstream to itself) nor would the DNIT received by BIG 224 already contain information about BIG 224. *See, e.g.,* page 26, lines 8-17.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The issues presented on Appeal are:

- A. Whether claims 16-20, 25-26, 35-40, 42, 49-53, 57-58, 61 and 63 are unpatentable under 35 U.S.C. § 103(a) over U.S. Patent No. 6,889,385 (“*Rakib*”) in view of U.S. Patent No. 6,112,239 (“*Kenner*”).
- B. Whether U.S. Patent No. 6,928,656 (“*Addington*”) is disqualified as prior art under 35 U.S.C. § 103(c), or whether claims 21 and 54 are unpatentable under 35 U.S.C. § 103(a) over U.S. Patent No. 6,889,385 (“*Rakib*”) and U.S. Patent No. 6,112,239 (“*Kenner*”) in view of *Addington*.
- C. Whether claims 44, 46-47, 60 and 62 are unpatentable under 35 U.S.C. § 103(a) over U.S. Patent No. 6,889,385 (“*Rakib*”) and U.S. Patent No. 6,112,239 (“*Kenner*”) in view of U.S. Patent No. 6,813,639 (“*Nobakht*”).
- D. Whether claims 48 and 56 are unpatentable under 35 U.S.C. § 103(a) over U.S. Patent No. 6,889,385 (“*Rakib*”) and U.S. Patent No. 6,112,239 (“*Kenner*”) in view of U.S. Patent No. 5,913,039 (“*Nakamura*”).
- E. Whether claim 55 is unpatentable under 35 U.S.C. § 103(a) over U.S. Patent No. 6,889,385 (“*Rakib*”) and U.S. Patent No. 6,112,239 (“*Kenner*”) in view of U.S. Patent No. 6,886,029 (“*Pecus*”).

VII. ARGUMENT

A. Rejections Over U.S. Patent No. 6,889,385 (“*Rakib*”) in view of U.S. Patent No. 6,112,239 (“*Kenner*”)

Claims 16-20 and 25-26

Claims 16-20 and 25-26 are improperly rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,889,385 (“*Rakib*”) in view of U.S. Patent No. 6,112,239 (“*Kenner*”) because neither *Rakib* nor *Kenner* disclose the features of independent claim 16 of a receiver receiving a dynamic network information table including information associated with transmission characteristics of the first device and one or more upstream devices. As an initial matter, the Office Action does not sufficiently disclose how the elements of the claims are met,

e.g., it is not explained which elements of *Rakib* (or *Kenner*) correspond to the claimed receiver, first device, or one or more upstream devices. Paramount to any grounds of rejection is an explanation of how the elements of the claim are described by a cited reference, but such explanation has not been provided with respect to each element of the claims.

Appellants' review of the primary reference reveals that *Rakib* discusses a cherry picker multiplexer 10, which receives video input streams 14, 16 containing programs, which may be transmitted to settop decoder boxes 18, 20, 22, 24. The multiplexer 10 also receives program

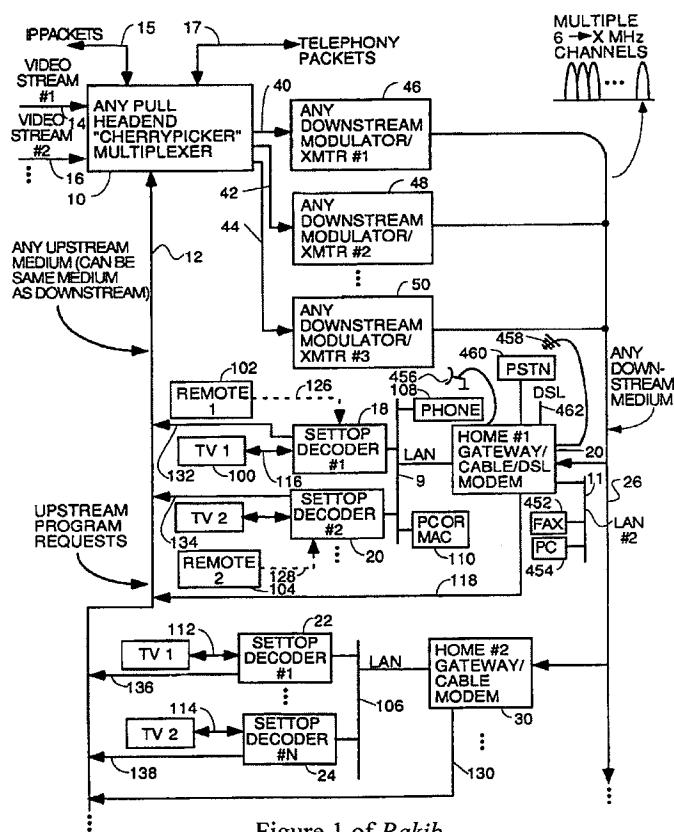


Figure 1 of Rakib

and service requests from the users of the settop decoder boxes **18, 20, 22, 24**, whereupon the multiplexer **10** converts the requests into Program Identifier Codes (PIDs) that identify the requested program. *Rakib* at col. 9 line 32 to col. 10 line 22. The multiplexer **10** then uses the PIDs to identify and cull out data packets in the incoming video streams **14, 16** that encode the requested program, and then those data packets are transmitted through transmitter/modulators **46, 48, 50** to the requesting settop decoder boxes **18, 20, 22, 24**. *Rakib* at col. 10 line 43 to col. 12 line 64. *Rakib* also describes the gateway **13** of the multiplexer **10**

providing “a menu to users of video programs, multimedia files, telephony services or wideband internet access or other wideband services which are available for selection by the user.” *Rakib* at col. 9 lines 50-55.

The Office Action equates the menu of *Rakib* with the claimed dynamic network information table, the PID of *Rakib* with the claimed device-specific subtable, and an alleged “PID that is associated with the sending node” with the claimed information associated with transmission characteristics of the first device. As an initial matter, *Rakib* does not contain *any*

disclosure of a “sending node” or of a “PID that is associated with the sending node”. Although Appellants have so requested, the Examiner has not provided any column and line citation (or any other explanation) guiding them to this alleged teaching in *Rakib*.

The Office Action does not identify what element of *Rakib* allegedly equates to the claimed receiver. However, *Rakib* discloses that “cherry picker 10 also has an input coupled to any upstream medium 12 for receiving upstream program and/or service requests from the users” (at col. 9 lines 32-34) and that “the gateway 13 [of the cherry picker multiplexer 10] may also send data downstream to present a menu to users...” (at col. 9 lines 50-52). *Rakib* discloses the menu and requests for service as being sent between the multiplexer 10 and the users. The users interact with the televisions (TVs) 100 and the settop decoder boxes 18, 20, 22, 24 to receive and view the menu, select a desired service, and transmit the request for service to the multiplexer 10. In this transmission “loop”, the menu is sent from multiplexer 10 through downstream modulators/transmitters 46, 48, 50 and home gateway/cable/DSL modems 28, 30 to the settop decoder boxes 18, 20, 22, 24 (where it is displayed on TVs 100), and the request for service is sent from the settop decoder boxes 18, 20, 22, 24 directly to the multiplexer 10. Thus, the settop decoder boxes 18, 20, 22, 24 are the only device in the network of *Rakib* that both receives the menu and transmits a request for service, and accordingly the only device which can correspond to the claimed receiver.

In order for these grounds of rejection to apply to each and every element of claim 16, the menu of *Rakib* must be dynamic and must contain information associated with transmission characteristics of the first device, i.e., the device from which it is sent (the multiplexer 10), as well as information associated with transmission characteristics of one or more devices positioned upstream to the multiplexer 10. *Rakib*, however, does not disclose these features. The menu of *Rakib* does not contain information about network devices, as described and claimed in the present Application. Instead, *Rakib* teaches a menu containing information about programs and services, not devices. *Rakib* fails to teach the transmission and/or receipt of any information related to network devices.

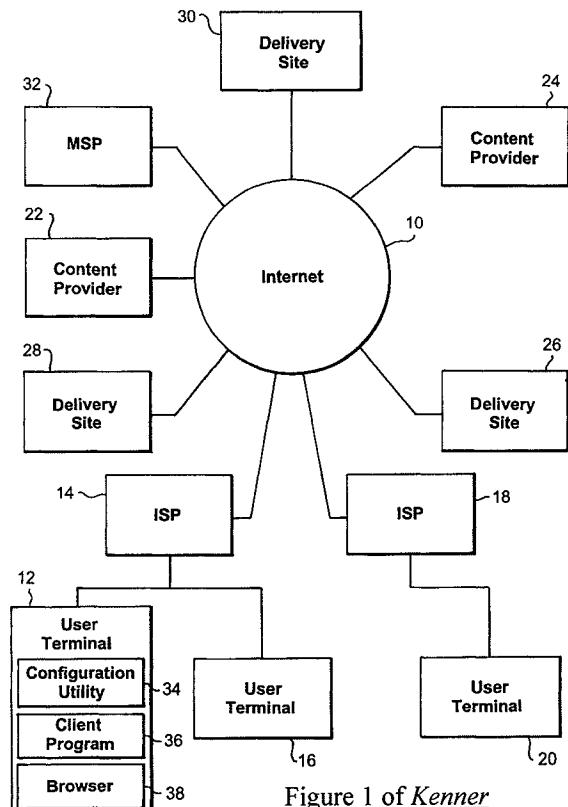
Moreover, nowhere in *Rakib* is it specified that the menu is dynamic. In the absence of any information about how the menu is presented to users, it is improper to conclude that *Rakib* teaches a dynamic menu, because a dynamic menu is not necessary to the operation of *Rakib*’s

system. “In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original), cited in MPEP § 2112 part IV. No such showing has been made here.

Similarly, the Examiner’s attempt to equate the PID of *Rakib* with the claimed device-specific subtable also fails. In order for these grounds of rejection to apply to each and every element of claim 16, the PID of *Rakib* must be received by a receiver (settop decoder boxes 18, 20, 22, 24), and must include information associated with transmission characteristics of devices located upstream of the receiver. *Rakib*’s PID, however, is used by the multiplexer 10, and is not received by (or transmitted to), the settop decoder boxes 18, 20, 22, 24. Further, the PID is an identifier of a program or service, and does not contain information regarding devices or their transmission characteristics.

Kenner fails to supplement these deficiencies and similarly does not disclose, teach or suggest these features. Appellants’ review reveals that *Kenner* discusses a system and method of improving data delivery by providing an IP address look-up table to given users in a distributed computer network. In a network, user terminals 12, 16, 20 are connected to the Internet 10, as are data delivery sites 26, 28, and 30 and mirror service provider (MSP) 32. The MSP 32 manages data delivery by collecting information about the performance of data delivery from the delivery sites 26, 28, 30 to the user terminals 12, 16, 20, and using that information to produce a look-up table which is provided to a user terminal 12, 16, 20 upon its initial configuration.

Kenner at col. 8 lines 13-63.



In particular, *Kenner* teaches that a “correlation can be drawn between a user’s IP address and a delivery site that offers better data delivery performance”, and that the “correlated data is used to produce a look-up table”, at col. 16, lines 37-41. The “look-up table is formed comprising a list of first-byte IP addresses numbering 0-255, and for each address, a list of delivery sites providing improved performance for users having corresponding IP addresses”, at col. 17, lines 24-28, and that upon a user request, a “redirection server analyzes the user’s IP address and examines the list of potential delivery sites on the look-up table to determine what delivery site or sites are correlated with the user’s IP address”, at col. 18, lines 20-23. The system of *Kenner* may also “subdivide[] the look-up table into smaller sublists with a given range of addresses” and “download (step 142) to the user a small file containing the sublist”, at col. 18, line 62 through col. 19, line 1.

The Office Action equates the IP address look-up table of *Kenner* with the claimed dynamic network information table including a upstream subtable. In order for these grounds of rejection to apply to each and every element of claim 16, the IP address look-up table of *Kenner* must be dynamic, and must contain information associated with transmission characteristics of the first device, i.e., the device from which it is sent (MSP 32), as well as information associated with transmission characteristics of one or more devices positioned upstream to the MSP 32. *Kenner*, however, does not disclose these features. First, a static look-up table correlating IP addresses with preferred delivery sites is not a teaching or suggestion of a dynamic table, nor does it contain information associated with transmission characteristics of the first device, i.e., the device from which it is sent (MSP 32). Second, the look-up table of *Kenner* fails to include any information about devices positioned upstream to the first device (MSP 32). Thus, *Kenner* fails to disclose, teach or suggest a dynamic network information table including a upstream subtable, and accordingly cannot supplement the deficiencies of *Rakib*.

In addition, a *prima facie* case of obviousness has not been established because the Examiner has not provided any support for the conclusion that there existed at the time of the invention an apparent reason to modify the device of *Rakib* in the manner claimed. Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. See *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1740-41, 82 USPQ2d 82

USPQ2d 1385, 1396 (2007); *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). *See also* MPEP §2141. The Examiner provides no basis for the assertion that modifying the menu of *Rakib* with the IP address look-up table of *Kenner* would enhance the functioning of *Rakib*, e.g., by assisting a user in ordering programs via the menu. The Examiner cites to a rationale of splitting a network table to “alleviate request for information”, but as no network table is disclosed in *Rakib*, *Rakib* cannot be modified in this manner. Moreover, the usefulness of the menu of *Rakib* lies in its listing of available programs and services, and splitting the menu would serve no apparent purpose and would be presumed to counteract the functionality of the menu by forcing the user to examine multiple listings or menus instead of a single menu.

Thus, because *Rakib* and *Kenner*, either alone or in combination, fail to disclose, teach or suggest a receiver receiving a dynamic network information table including information associated with transmission characteristics of the first device and one or more upstream devices, the rejection over *Rakib* and *Kenner* is flawed and improper.

Claims 35-40 and 42

Claims 35-40 and 42 are improperly rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,889,385 (“*Rakib*”) in view of U.S. Patent No. 6,112,239 (“*Kenner*”) because neither *Rakib* nor *Kenner* disclose the features of independent claim 35 of an apparatus having an input port for *receiving a first transport stream containing a first dynamic network information table* via a first communication link, a *processor adapted to determine network information related to the received transport stream and to create a second dynamic network information table* containing an identifier associated with the apparatus and the network information from the first dynamic network information table, and a transmitter adapted to *transmit the second dynamic network information table through a second communication link*.

As an initial matter, the Office Action does not sufficiently disclose how the elements of the claims are met, e.g., it is not explained which elements of *Rakib* (or *Kenner*) correspond to the claimed apparatus or its components. Paramount to any grounds of rejection is an explanation of how the elements of the claim are described by a cited reference, but such explanation has not been provided with respect to each element of the claims. The Examiner states merely that these claims “are rejected for similar reasons as stated above”, referring to the

rejection of claim 16, however claim 16 claims a different aspect of the present invention that does not contain all of the elements of claim 35. As noted above, the Office Action had indicated with respect to claim 16 that the menu of *Rakib* equates to the claimed first dynamic network information table, so the same equation is presumed to apply here.

The Office Action does not indicate any element of *Rakib* that corresponds with the claimed apparatus. As described above, *Rakib* discloses the menu as being sent from the multiplexer **10** through downstream modulators/transmitters **46, 48, 50** and home gateway/cable/DSL modems **28, 30** to the settop decoder boxes **18, 20, 22, 24** (where it is displayed on TVs **100**). *Rakib* teaches only one of these devices as containing a processor and a transmitter, i.e., the multiplexer **10**, and *Rakib* also teaches only one of these devices as capable of creating a menu, i.e., the multiplexer **10**. The multiplexer **10** also accepts input via links **14, 15, 16, 17**. Thus, because the only element of *Rakib* that contains an input port, a processor capable of creating a menu, and a transmitter is the multiplexer **10**, the multiplexer **10** must equate to the claimed apparatus.

Claim 35 requires that the apparatus be able to receive a first dynamic network information table (the menu) including network information related to an identifier corresponding to an upstream device, use a processor adapted to determine network information related to the received transport stream and to create a second dynamic network information table containing an identifier associated with the apparatus and the network information from the first dynamic network information table (the menu), and use a transmitter adapted to transmit the second dynamic network information table through a second communication link. Thus, in order for these grounds of rejection to apply to each and every element of claim 35, the menu of *Rakib* must be dynamic and must contain network information related to an identifier corresponding to an upstream device, and there must be a second menu that contains all of this information as well as an identifier associated with the apparatus.

Rakib does not disclose these features. As described above, the menu of *Rakib* is neither dynamic nor contains information about network devices, let alone upstream network devices, nor does *Rakib* disclose the creation or transmission of a second menu. Further, the multiplexer **10** never receives a menu, let alone a menu containing network information related to an

identifier corresponding to an upstream device, and therefore *Rakib* simply does not disclose an apparatus as required in the claims.

Kenner fails to supplement the deficiencies of *Rakib*, and similarly does not disclose, teach or suggest these features, for the reasons stated above. Moreover, *Kenner* fails to teach a method or system wherein a dynamic table including information related to an upstream device is transmitted to an apparatus, which *adds information relating to itself before passing the table with the added information downstream*. The look-up table of *Kenner* is created by the mirror service provider (MSP) 32 and sent to the user terminals 12, 16, 20. Nothing in *Kenner* teaches or suggests that the user terminals 12, 16, 20 create a second table and pass it downstream, let alone a table containing information associated with the user terminals 12, 16, 20.

In addition, a *prima facie* case of obviousness has not been established because the Examiner has not provided any support or even argument for his conclusion that there existed at the time of the invention an apparent reason to modify the device of *Rakib* in the manner claimed. *Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.* See *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1740-41, 82 USPQ2d 82 USPQ2d 1385, 1396 (2007); *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also MPEP §2141. Here, the Examiner has not provided even a conclusory statement to explain his rejection.

Thus, because *Rakib* and *Kenner*, either alone or in combination, fail to disclose, teach or suggest all of the claimed elements, the rejection over *Rakib* and *Kenner* is flawed and improper.

Claims 49-53, 57-58, 61 and 63

Claims 49-53, 57-58, 61 and 63 are improperly rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,889,385 (“*Rakib*”) in view of U.S. Patent No. 6,112,239 (“*Kenner*”) because neither *Rakib* nor *Kenner* disclose the features of independent claim 49 of receiving in a first device a first transport stream from an upstream device including a first *dynamic* network information table including network information related to at least one *characteristic of one or more transport streams* transmitted within the digital broadband delivery system, *inserting the network information and information specific to the first device in a packet*

of a second transport stream, and transmitting the second transport stream to a downstream device.

As an initial matter, the Office Action does not sufficiently disclose how the elements of the claims are met, e.g., it is not explained which elements of *Rakib* (or *Kenner*) correspond to the claimed first device, upstream device, or downstream device, nor is any disclosure identified regarding a device that modifies a dynamic network information table by adding information relating to itself before passing the table with the added information downstream. Paramount to any grounds of rejection is an explanation of how the elements of the claim are described by a cited reference, but such explanation has not been provided with respect to each element of the claims. The Examiner states merely that these claims “are rejected for similar reasons as stated above”, referring to the rejection of claim 16, however claim 16 claims a different aspect of the present invention that does not contain all of the elements of claim 49. As noted above, the Office Action had indicated with respect to claim 16 that the menu of *Rakib* equates to the claimed first dynamic network information table, so the same equation is presumed to apply here.

Claim 49 requires that a first device receive a first dynamic network information table (the menu) including network information related to a characteristic of one or more transport streams transmitted within the digital broadband delivery system, and also inserting network information and information specific to the first device in a second transport stream, and transmitting the second transport stream to a device downstream from the first device. Thus, in order for these grounds of rejection to apply to each and every element of claim 49, the menu of *Rakib* must be dynamic and must contain network information related to a characteristic of one or more transport streams transmitted within the digital broadband delivery system, and then this network information and additional information specific to the first device must be inserted into a second transport stream. *Rakib* does not disclose these features. As described above, the menu of *Rakib* is a listing of programs, e.g., pay-per view television programs, not a dynamic table of network information relating to transport streams. Nor does *Rakib* teach or suggest inserting information specific to any device, let alone the claimed first device, into a second transport stream, either with or without the network information from the first dynamic network information table (the menu).

Kenner fails to supplement the deficiencies of *Rakib*, and similarly does not disclose, teach or suggest these features, for the reasons stated above with respect to claims 16 and 35. Moreover, *Kenner* fails to teach a method or system wherein a dynamic table including information related to transport streams is transmitted to a user terminal **12, 16, 20**, which adds information relating to itself before passing the table with the added information downstream. The look-up table of *Kenner* is created by the mirror service provider (MSP) **32** and sent to the user terminals **12, 16, 20**. Nothing in *Kenner* teaches or suggests inserting information associated with the user terminals **12, 16, 20** into a transport stream, let alone passing this information downstream from the user terminals **12, 16, 20**.

In addition, a *prima facie* case of obviousness has not been established because the Examiner has not even made an argument or statement that there existed at the time of the invention an apparent reason to modify the device of *Rakib* in the manner claimed. Thus, because *Rakib* and *Kenner*, either alone or in combination, fail to disclose, teach or suggest all of the claimed elements, the rejection over *Rakib* and *Kenner* is flawed and improper.

B. Disqualification of U.S. Patent No. 6,928,656 (“*Addington*”) As Prior Art, and the Underlying Rejection Over U.S. Patent Nos. 6,889,385 (“*Rakib*”) and 6,112,239 (“*Kenner*”) in view of *Addington*

Claims 21 and 54

Claims 21 and 54 are improperly rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,889,385 (“*Rakib*”) and 6,112,239 (“*Kenner*”) in view of U.S. Patent No. 6,928,656 (“*Addington*”), because *Addington* is not a proper reference to the present application pursuant to 35 U.S.C. § 103(c). 35 U.S.C. § 103(c)(1) recites:

Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Addington is a patent granted on an application for patent by another (Timothy Hall Addington) filed on May 14, 1999 and issued on August 9, 2005. *Addington* was not published prior to issuance. The present Application was filed on October 12, 2001. Thus, *Addington* does not qualify as prior art to the present Application under any section other than 35 U.S.C. §

102(e), because it was not patented or published prior to the present Application's filing. Further, *Addington* was, at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to the same person (Scientific-Atlanta, Inc.) as the present Application. *See* 35 U.S.C. § 103(c); *see also* MPEP § 706.02(l)(2), Part II. Evidence of common ownership includes the actual assignment of both patent documents to their common owner, Scientific-Atlanta, Inc., as evinced by the assignments recorded in the Office at Reel 009962, Frame 0262 (for *Addington*), and Reel 012260, Frame 0356 (for the present Application).

Appellants submitted this argument, a statement of proof of common ownership, and the reference to the supporting assignments in its response to the Office Action, however the Examiner refused to enter the response, and maintained the rejection in the Advisory Action. This is legal error rendering this rejection improper.

C. Rejection Over U.S. Patent Nos. 6,889,385 (“*Rakib*”) and 6,112,239 (“*Kenner*”) in view of U.S. Patent No. 6,813,639 (“*Nobakht*”)

Claims 44 and 46

Claims 44 and 46 are improperly rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,889,385 (“*Rakib*”) and 6,112,239 (“*Kenner*”) in view of U.S. Patent No. 6,813,639 (“*Nobakht*”). The failure of *Rakib* and *Kenner*, either alone or in combination, to teach, disclose or suggest all of the claim elements of independent claim 35, upon which claims 44 and 46 depend, is discussed above. *Nobakht* fails to supplement the deficiencies of *Rakib* and *Kenner*, and similarly does not disclose, teach or suggest including a dynamic network information table, or indeed any network information, in a program association table of a transport stream.

Appellants' review of *Nobakht* reveals an Internet access portal system designed to assist unskilled Internet users in surfing the Internet. In the system, individual Internet sites are assigned channel numbers, which allows a user to select a desired Internet site by its channel number, either manually or via a device similar to a television remote control. The various “channels” can be displayed to the user in the form of menu-like pages **900A** to **900C-3**, which are also assigned channel numbers, e.g., page **900B** is assigned channel number 7000. The pages can be arranged via categories, for example “Sports” page **900B** and “News” page **900B-2**, and

can depict a name, logo, or other identifying information about each sub-category or site. For example, in “NHL” sub-category page 900C-1, a full listing of all channels (sites) in this sub-category appear in channel number table 910C-1, and a logo group 920C-1 elsewhere on the page depicts logos corresponding to particular Internet sites.

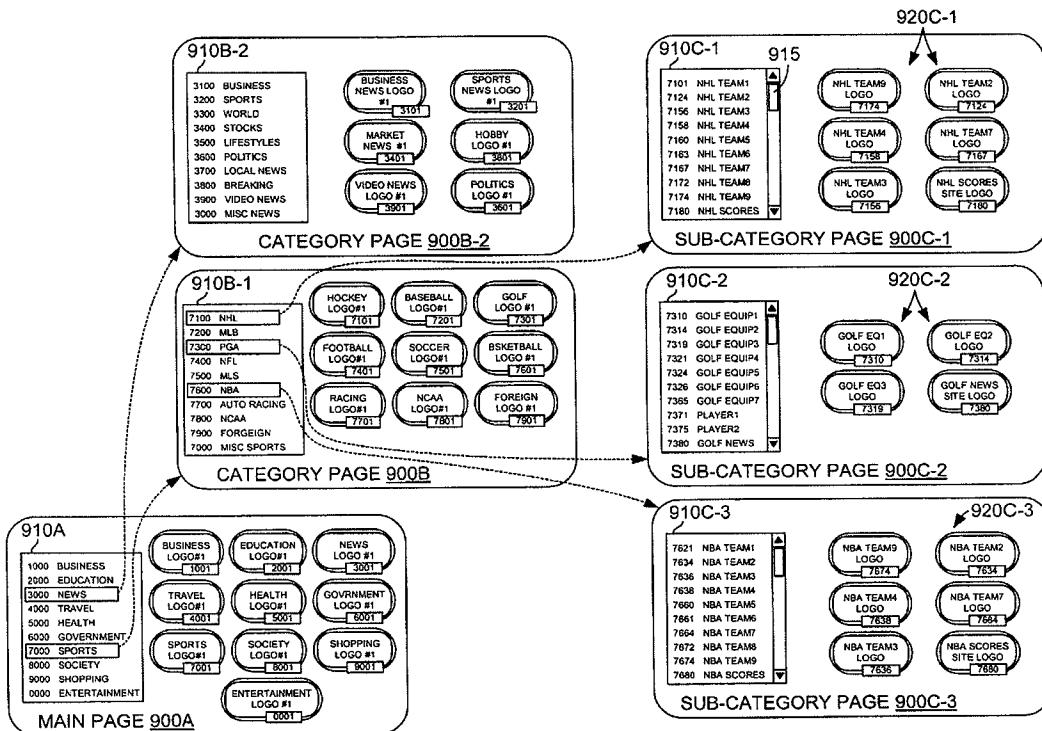


Figure 10 of *Nobakht*

The Examiner has cited to Figure 10 and column 11, lines 29-64 of *Nobakht* as allegedly teaching the inclusion of first and second dynamic network information tables into the program association table of a first and second transport stream, respectively. These citations, however, refer to the above-described logo group 920C-1, and to the pages 900A to 900C-3, and generically describe how the pages are structured and how logos can be assigned to particular sites. These portions of *Nobakht* have nothing to do with transport streams or dynamic network information tables, let alone the insertion of dynamic network information tables into the program association tables of transport streams, as required by the claims on appeal.

In addition, a *prima facie* case of obviousness has not been established because the Examiner has not provided any support for the conclusion that there existed at the time of the invention an apparent reason to modify the menu of *Rakib* or the IP address look-up table of

Kenner by rendering it in the graphical format of *Nobakht*. Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *See KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1740-41, 82 USPQ2d 82 USPQ2d 1385, 1396 (2007); *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). *See also* MPEP §2141. Moreover, the Examiner has also not offered an explanation of how one would modify *Rakib* and *Kenner* with *Nobakht*, or how such a modification would achieve the claimed invention. Thus, this rejection is improper.

Claim 47

Claim 47 is improperly rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,889,385 (“*Rakib*”) and 6,112,239 (“*Kenner*”) in view of U.S. Patent No. 6,813,639 (“*Nobakht*”). The failure of *Rakib* and *Kenner*, either alone or in combination, to teach, disclose or suggest all of the claim elements of independent claim 35, upon which claim 47 depends, is discussed above. With respect to claim 47, the Office Action cites only to *Rakib*, alleging that it teaches a plurality of transmitters, and a processor adapted to create a dynamic network information table, at col. 37 line 40 to col. 38 line 25. This portion of *Rakib* describes a process in which a headend modem receives Video-On-Demand (VOD) via satellite or other means. *See Rakib* at col. 36 line 47 to col. 38 line 25. The headend modem has multiple VOD modulators/transmitters, which transmit VOD channels downstream. *Rakib* at col. 37, lines 40-51. This disclosure is irrelevant to the present claim, because the multiplexer **10**, not the headend modem, is the claimed apparatus. Moreover, *Rakib* does not disclose any device as creating the claimed second or third dynamic network information tables. *Nobakht* fails to supplement the deficiencies of *Rakib* and *Kenner*, and similarly does not disclose, teach or suggest that the apparatus (multiplexer **10**) creates a second dynamic network information table, let alone a third dynamic network information table having a transmitter identifier for each transmitter included therein. Accordingly, this rejection is flawed and improper.

Claim 60

Claim 60 is improperly rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,889,385 (“*Rakib*”) and 6,112,239 (“*Kenner*”) in view of U.S. Patent No. 6,813,639

(“*Nobakht*”). The Office Action contains no explanation of this rejection, but merely states that “Claims 60 and 62 are rejected for similar reasons as stated above.” Office Action at page 7.

Claim 60 depends on claim 58, and ultimately on independent claim 49. As explained above with respect to claim 49, the Office Action indicated that the menu of *Rakib* equates to the claimed first dynamic network information table, but failed to indicate what elements of *Rakib* equate to the other claim limitations. Claim 60 requires the creation of a second dynamic network information table that is transmitted from the first device (see claim 58), and that the first device be connected to first and second communication links. Thus, the first device must not only receive the first dynamic network information table, but create and transmit a second dynamic network information table. No device in *Rakib*, *Kenner* or *Nobakht* satisfies this description, because no device both receives a first menu and creates a second menu. Moreover, none of these references describe a dynamic table of network information relating to transport streams, or inserting information specific to *any* device, let alone the claimed first device, into a second transport stream, either with or without the network information from the first dynamic network information table (the menu). Accordingly, because none of *Rakib*, *Kenner* or *Nobakht* disclose, teach or suggest a device capable of carrying out the functions of the claimed first device, this rejection is flawed and improper.

Claim 62

Claim 62 is improperly rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,889,385 (“*Rakib*”) and 6,112,239 (“*Kenner*”) in view of U.S. Patent No. 6,813,639 (“*Nobakht*”). The Office Action contains no explanation of this rejection, but merely states that “Claims 60 and 62 are rejected for similar reasons as stated above.” Office Action at page 7.

Claim 62 depends on independent claim 49. As explained above with respect to claim 49, the Office Action indicated that the menu of *Rakib* equates to the claimed first dynamic network information table, but failed to indicate what elements of *Rakib* equate to the other claim limitations. Claim 62 requires that the network information related to the transport streams be monitored and updated in response to changes in the network information, and that the first device be connected to first and second communication links. Nothing in *Rakib*, *Kenner* or *Nobakht* disclose, teach or suggests such a monitoring and updating process, or a dynamic table

of network information relating to transport streams, or inserting information specific to *any* device, let alone the claimed first device, into a second transport stream, either with or without the network information from the first dynamic network information table (the menu). Accordingly, this rejection is flawed and improper.

D. Rejection Over U.S. Patent Nos. 6,889,385 (“Rakib”) and 6,112,239 (“Kenner”) in view of U.S. Patent No. 5,913,039 (“Nakamura”)

Claim 48

Claim 48 is improperly rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,889,385 (“Rakib”) and 6,112,239 (“Kenner”) in view of U.S. Patent No. 5,913,039 (“Nakamura”). The failure of *Rakib* and *Kenner*, either alone or in combination, to teach, disclose or suggest all of the claim elements of independent claim 35, upon which claim 48 depends, is discussed above. *Nakamura* fails to supplement the deficiencies of *Rakib* and *Kenner*, and does not disclose, teach or suggest that the processor of the claimed apparatus

(multiplexer 10) is adapted to monitor the first communication link, respond to changes in the link, generate an alert message, and send the alert message to the transmitter of the claimed apparatus (multiplexer 10), as required by claim 48.

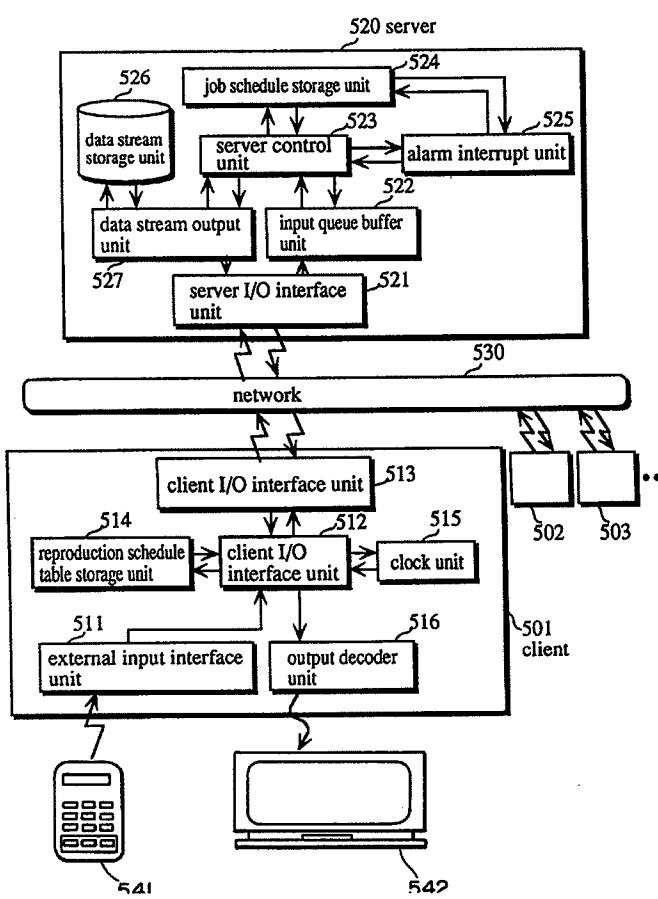


Figure 5 of Nakamura

Appellants’ review of *Nakamura* reveals a Video On Demand system comprising server 520, network 530, and one or more clients 501. A user wishing to see a particular video transmission sends a request from client 501 through network 530 to the server I/O interface unit 521, and then to server control unit 523, which makes a transmission schedule, stores it in job schedule storage unit 524, and sets a

timer for each requesting client in alarm interrupt unit **525**. The server control unit **523** also instructs data stream output unit **527** to transmit the video data stream to the client **501**, and initializes and starts a timer for client **501** in the alarm interrupt unit **525**. *See Nakamura* at col. 9 line 4 to col. 11 line 13. *Nakamura* describes the alarm interrupt unit **525** as follows (at col. 11, lines 43-55):

Alarm interrupt unit 525 has timers for each client. When one of the timers is activated by server control unit 523, it continues measuring time until the start time of the title to be transmitted next in the transmission schedule table corresponding to the client of the timer in job schedule storage unit 524 (the transmission video name which is next to the one marked with "*"). When the timer reaches that time, it stops, and the client name is posted to server control unit 523. When the timer is reactivated by server control unit 523, the timer continues measuring time until the start time of the title which should be transmitted next. When the timer reaches that start time, alarm interrupt unit 525 posts the client name to server control unit 523.

Thus, it can be seen that the alarm interrupt unit **525** serves a timing function which measures the times of scheduled transmissions, and does not monitor communication links or act to respond to changes in a communication link as required by the claimed invention.

In addition, a *prima facie* case of obviousness has not been established because the Examiner has not provided any support for the conclusion that there existed at the time of the invention an apparent reason to modify the device of *Rakib* in the manner claimed. Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *See KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1740-41, 82 USPQ2d 82 USPQ2d 1385, 1396 (2007); *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). *See also* MPEP §2141. The Examiner provides no basis for the assertion that modifying the menu of *Rakib* with the alarm interrupt unit of *Nakamura* would enhance the functioning of *Rakib*, because the timing of individual transmissions to individual clients is irrelevant to providing the clients with a menu of regularly scheduled transmissions, e.g., broadcast programs. Thus, because *Rakib*, *Kenner* and *Nakamura*, either alone or in combination, fail to disclose, teach or suggest all of the claimed elements, the rejection is flawed and improper.

Claim 56

Claim 56 is improperly rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,889,385 (“*Rakib*”) and 6,112,239 (“*Kenner*”) in view of U.S. Patent No. 5,913,039 (“*Nakamura*”). The Office Action contains no explanation of this rejection, but merely states that “Claim 56 is rejected for similar reasons as stated above.” Office Action at page 8.

The failure of *Rakib* and *Kenner*, either alone or in combination, to teach, disclose or suggest all of the claim elements of independent claim 49, upon which claim 56 depends, is discussed above. *Nakamura* fails to supplement the deficiencies of *Rakib* and *Kenner*, and does not disclose, teach or suggest that the network information contained in the first dynamic network information table includes the status of at least one communication link between the first device and at least one upstream device, as required by claim 56. Thus, the rejection is flawed and improper.

E. Rejection Over U.S. Patent Nos. 6,889,385 (“*Rakib*”) and 6,112,239 (“*Kenner*”) in view of U.S. Patent No. 6,886,029 (“*Pecus*”)

Claim 55

Claim 55 is improperly rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,889,385 (“*Rakib*”) and 6,112,239 (“*Kenner*”) in view of U.S. Patent No. 6,886,029 (“*Pecus*”). The failure of *Rakib* and *Kenner*, either alone or in combination, to teach, disclose or suggest all of the claim elements of independent claim 49, upon which claim 55 depends, is discussed above. *Pecus* fails to supplement the deficiencies of *Rakib* and *Kenner*. Even if *Pecus* teaches that “network information” can include bit error information, such disclosure does not compensate for the failure of *Rakib* and *Kenner* to teach, suggest or disclose a dynamic network information table (the menu of *Rakib*) that contains network information related to a characteristic of one or more transport streams transmitted within the digital broadband delivery system, and that this network information and additional information specific to the first device must be inserted into a second transport stream. Accordingly, the rejection is flawed and improper.

F. Conclusion

For all of the above reasons, it is respectfully asserted that the pending claims of the present application would not have been obvious to those of ordinary skill in the art in light of the cited references either alone or in combination. Accordingly, the Board should overturn the present rejections. Reversal of the pending rejections of record and allowance of the claims of this application are respectfully requested.

VIII. LISTING OF CLAIMS

(See Appendix A)

IX. EVIDENCE APPENDIX

(None)

X. RELATED PROCEEDINGS APPENDIX

(None)

Dated: July 28, 2008

Respectfully submitted by:

EDELL, SHAPIRO & FINNAN, LLC
CUSTOMER NO. 27896
1901 Research Boulevard, Suite 400
Rockville, MD 20850
(301) 424-3640

/June E. Cohan/

June E. Cohan
Reg. No. 43,741

APPENDIX A

Listing of Claims:

1-15. (Canceled)

16. (Previously Presented) A method for enabling a receiver in a digital subscriber network to request services, the method comprising the steps of:

receiving, at a receiver, a dynamic network information table inserted within a transport stream from a first device, the dynamic network information table including a device-specific subtable and an upstream subtable, the device-specific subtable including information associated with transmission characteristics of the first device, the first device positioned in the digital subscriber network upstream with respect to the receiver, the upstream subtable including information associated with transmission characteristics of one or more devices positioned in the digital subscriber network upstream with respect to the first device; and

transmitting a request for a service, the requested service including at least a portion of the information included in the dynamic network information table.

17. (Previously Presented) The method of claim 16, further including the steps of:

identifying from the dynamic network information table an upstream device associated with the requested service; and

including the identification of the upstream device in the transmitted request for the service.

18. (Previously Presented) The method of claim 17, further including the step of:

identifying a controller associated with the identified upstream device;

wherein transmitting the request for the service includes transmitting the request to the controller.

19. (Original) The method of claim 16, further including the steps of:

determining a communication path through the digital subscriber network for the requested service; and

including the communication path in the transmitted request for the service.

20. (Original) The method of claim 19, wherein the communication path is determined based upon network information included in the received dynamic network information table.

21. (Original) The method of claim 20, wherein the dynamic network information table includes available bandwidth of at least one upstream communication link in the digital subscriber network.

22-24. (Canceled)

25. (Previously Presented) The method of claim 16, wherein the dynamic network information table is included in a packet having a reserved packet identifier associated therewith.

26. (Original) The method of claim 25, wherein the packet is a program association table packet.

27. (Withdrawn) A method for providing services to a receiver in a digital subscriber network, the method comprising the steps of:

receiving from a receiver a request for a service, the request including network information related to at least one characteristic of a plurality of transport streams transmitted within the digital subscriber network to the receiver;

processing the request for the service using the received network information to determine which one or more transport streams of the plurality of transport streams have sufficient bandwidth to provide the requested service; and

providing the requested service to the receiver based on the determination of which one or more transport streams have sufficient bandwidth.

28. (Withdrawn) The method of claim 27, wherein the received network information includes an identifier for a device associated with the requested service.

29. (Withdrawn) The method of claim 28, wherein the requested service is a pay-per-view program and the device is a VOD server having the requested program stored therein.

30. (Withdrawn) The method of claim 27, wherein the network information includes information related to the available bandwidth through at least one communication link of the digital subscriber network.

31. (Withdrawn) The method of claim 30, wherein the network information includes information related to a device associated with the requested service, and the device and the receiver are coupled by a first communication link of the at least one communication link.

32. (Withdrawn) The method of claim 27, wherein the step of processing further includes the step of:

reading the received network information to determine at least one device that is associated with the requested service.

33. (Withdrawn) The method of claim 32, wherein the at least one device is a plurality of devices, and further including the step of:

using information included in the received network information to determine which particular device of the plurality of devices shall transmit the requested service to the receiver; and

wherein the step of providing further includes:

sending a message to the particular device to initiate transmission of the requested service.

34. (Withdrawn) The method of claim 33, wherein the network information includes bandwidth information for communication links between the plurality of devices and the receiver, and the bandwidth information is used for determining the particular device.

35. (Previously Presented) An apparatus in a digital network coupled to a first communication link and a second communication link, the apparatus comprising:

an input port adapted to receive a first transport stream through a first communication link, the first transport stream including a first dynamic network information table, the first dynamic network information table including network information related to an identifier corresponding to an upstream device in communication with the first communication link;

a processor in communication with the input port, the processor adapted to determine network information related to the received transport stream, the processor further adapted to create a second dynamic network information table, the second dynamic network information table having an identifier associated with said apparatus and the network information included in the first dynamic network information table; and

a transmitter in communication with the processor, the transmitter adapted to transmit the second dynamic network information table through the second communication link.

36. (Previously Presented) The apparatus of claim 35, wherein the processor is further adapted to insert the second dynamic network information table in a second transport stream, and the transmitter is adapted to transmit the second transport stream.

37. (Original) The apparatus of claim 36, wherein the second transport stream includes multiple elementary streams of the first transport stream.

38. (Previously Presented) The apparatus of claim 35, wherein the network information includes a transport stream identifier for the first transport stream.

39. (Previously Presented) The apparatus of claim 35, wherein the network information includes transport stream information related to the first transport stream.

40. (Previously Presented) The apparatus of claim 39, wherein the transport stream information includes information related to the type of packets contained in the first transport stream.

41. (Canceled)

42. (Previously Presented) The apparatus of claim 35, wherein the processor is further adapted to periodically create dynamic network information tables based on information specific to said apparatus and based on dynamic network information tables received at the input port.

43. (Canceled)

44. (Previously Presented) The apparatus of claim 35, wherein the first dynamic network information table is included in a program association table of the first transport stream.

45. (Canceled)

46. (Previously Presented) The apparatus of claim 35, wherein the second dynamic network information table is included in a program association table of the second transport stream.

47. (Previously Presented) The apparatus of claim 35, further comprising a plurality of transmitters, each transmitter having an identifier associated therewith, wherein the processor is adapted to create a dynamic network information table having a transmitter identifier included therein for each transmitter.

48. (Original) The apparatus of claim 35, wherein the processor is further adapted to monitor the first communication link and respond to changes in the first communication link by

generating an alert message and sending the alert message to the transmitter, wherein the transmitter transmits the alert message through the second communication link.

49. (Previously Presented) A method for propagating network information in a digital broadband delivery system, the method comprising:

receiving in a first device a first transport stream from an upstream device, the first transport stream including a first dynamic network information table, the first dynamic network information table including network information related to at least one characteristic of one or more transport streams transmitted within the digital broadband delivery system;

inserting the network information and information specific to the first device in a packet of a second transport stream; and

transmitting the second transport stream to a downstream device.

50. (Previously Presented) The method of claim 49, wherein the network information includes a transport stream identifier (TSID) for the first transport stream.

51. (Previously Presented) The method of claim 49, wherein the network information includes a transport stream identifier (TSID) for the second transport stream.

52. (Previously Presented) The method of claim 49, wherein the network information includes an identification of the first device.

53. (Previously Presented) The method of claim 49, wherein the network information includes an identification of at least one upstream device.

54. (Previously Presented) The method of claim 49, wherein the network information includes bandwidth availability information.

55. (Previously Presented) The method of claim 49, wherein the network information includes bit error information.

56. (Previously Presented) The method of claim 49, wherein the network information includes the status of at least one communication link between the first device and at least one upstream device.

57. (Canceled)

58. (Previously Presented) The method of claim 49, wherein the network information and information specific to the first device is included in a second dynamic network information table, the method further comprising transmitting the second dynamic network information table from the first device.

59. (Canceled)

60. (Previously Presented) The method of claim 58, further comprising: receiving the first transport stream through a first communication link; and transmitting the second dynamic network information table through a second communication link.

61. (Previously Presented) The method of claim 49, further comprising: periodically transmitting the network information.

62. (Previously Presented) The method of claim 49, wherein the first device receives the transport stream through a first communication link, the method further comprising: determining a first set of values from the network information; monitoring the first communication link to determine a second set of network information values; and responding to a change between the first set of network information values and the second set of network information values by transmitting the second set of network information values through a second communication link.

63. (Previously Presented) The method of claim 49, further comprising:
periodically receiving a dynamic network information table in the received transport
stream; and

responding to a change in the periodicity of received dynamic network information tables
by sending an alert message.